

REMARKS

The previous amendments and following remarks are submitted in response to the Office Action dated July 8, 2010. The Office Action rejected claims 1-3 and 7. Claims 4-6 were previously canceled. By this Amendment, to expedite prosecution of this application, claims 1, 3 and 7 are amended and new claims 8-19 have been added. Claims 1-3 and 7-19 are currently pending in this application.

Section 102 Rejections

The Office Action rejected claims 1-2 and 7 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,770,149 (“*Raible*”).

Claims 1-2 and 7 are patentable over *Raible*. In order to advance the prosecution of this application, however, claim 1 has been amended to clarify that the blood pump includes a rotor, and that the blood pump rotor is disposed within the second portion of the housing at a bottom thereof. The rotor is clearly illustrated in the Figure and is described at paragraph [0017] of the published application.

Raible does not disclose each and every element required by amended claim 1.

Raible discloses a P/HE/MO component (12) that is configured to accommodate a M/D component 14. The M/D component 14 may be inserted up into the P/HE/MO component 12 in order to drive the pump impeller assembly 38. As can be seen in Figure 3 of *Raible*, the pump impeller assembly 38 is disposed at or near the top of the P/HE/MO component 12. One of skill in the art will appreciate that *Raible* does not disclose a blood pump rotor that is disposed in a bottom portion (second portion) of a housing that also includes a bubble trap, a heat exchanger, an oxygenator, and an arterial blood filter.

Moreover, *Raible* does not disclose, teach, or suggest a pump motor that can be inserted into the lower portion of the P/HE/MO component 12. Rather, as described at column 5, lines 33-35 of *Raible*, the “rotatable drive member 17 is rotationally driven by an electric motor located within the base 13 of the M/D component 14.” As shown in Figure 1 of *Raible*, the base 13 does not fit into the P/HE/MO component 12, but instead remains below it.

Thus, *Raible* discloses a pump impeller (rotor) disposed at or near a top of the housing and a drive motor that remains outside of the housing. *Raible* cannot be considered as describing

a blood pump (either motor or rotor) that is disposed within a bottom portion (second portion) of a housing.

For at least these reasons, claim 1 is patentable over Raible. Claims 2 and 7 include the features of claim 1 and are thus patentable for at least the same reasons as to claim 1. Claims 2 and 7 also include further distinguishing features. Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Section 103 Rejections

The Office Action rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over *Raible* in view of U.S. Patent 5,924,848 (“*Israelev*”). Claim 1, from which claim 3 ultimately depends, is distinguished above as being patentable over *Raible*. *Israelev* does not remedy the noted shortcomings of *Raible*, and thus claim 1 is patentable over *Raible* and *Israelev*. Claim 3 includes the features of claim 1 and is thus patentable for at least the same reasons as claim 1. Claim 3 also includes further distinguishing features. Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For the reasons explained above, all pending claims are now in condition for allowance. Accordingly, Applicants respectfully request that the Office issue a Notice of Allowance.

Any amendments to the claims are made to expedite prosecution of this application, without acquiescing to the Office’s rejections or characterizations of the claims or references in the Office Action. Even if not expressly discussed above, Applicants respectfully traverse each of the rejections, assertions, and characterizations regarding the disclosure and teachings of the cited references, including the prior art status and the propriety of proposed combinations of cited references.

Applicants have made a good faith effort to respond to all rejections set forth in the Office Action and to place the pending claims in condition for immediate allowance. If the Examiner has any questions or comments, the Examiner is requested to contact the undersigned at 612-766-7217.

Respectfully submitted,

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Dated: December 8, 2010

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